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Cost Recovery in Commercial Item Contracts

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Cost Recovery in Commercial Item Contracts

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Abstract

Purpose: For uniformity, present value methodologies and clauses are needed.

Design: Based on a review of literature, FASB Concept Statement No. 7, and the FAR; a way to calculate present value of commercial item contracts is identified as well as present value clauses.

Findings: Commercial items involving an uncertain degree of risk and dynamic costs use a fuzzy net cash flow methodology, forming basis of net present value, to calculate cash flow in order account for risk and changing costs. Clauses should be inserted into commercial item contracts to allow for greater clarity as to how present value is calculated with certainty.

Practical Implications: No method to calculate the present value of recovery of cost of work performed prior to termination in commercial contracts exists. Present value clauses and methods are consistent with the intention of framers of the FAR.

Originality/Value: Due to lack of a current methodology to calculate the present value of commercial item contracts, FASB Concept Statement No. 7, present value, and fuzzy net cash flow are used to calculate present value of commercial items.

Background

The "Section 809 Panel" (n.d.) was tasked with improving efficiency of acquisition regulations and recommended improving acquisition of commercial items; but did not address what is fair and reasonable profit on work performed prior to termination. Thus, the following research question is addressed: How is present value identified in commercial item contracts and what corresponding contract clause should be inserted into the contract?

While the termination for convenience clause has "been around since the end of the Civil War"(Acquisitions.gov, n.d.) when the government needed to terminate contracts entered into during wartime when the need doesn't exist during peacetime, it has not been defined what is fair and reasonable.

The Federal Acquisition Regulation (FAR) might define what is fair and reasonable since the FAR regulates acquisitions with most executive agencies.

One consults FAR 2.101 on Acquisition.gov since it contains the definitions used in the FAR. However, FAR 2.101 does not define what fair and reasonable profit on work performed prior to termination is.

One looks to the FAR conventions as fair and reasonable profit on work performed prior to termination could be a "permissible exercise of a contracting officer's authority" (Acquisitions.gov, n.d.). However, a contracting officer's interpretation of what is fair and reasonable based on prior experience, regulations, etc. may be different from a contractor's definition of fair and reasonable based on the usage of estimated costs in its accounting system.

For instance, a computer is estimated to cost $100 by the government while contractor actually incurs $150 to make the computer, which is what a reasonable business person would expect to pay for a computer given reasonable efficiencies and market conditions; however they yield different results when the contract is terminated.

FAR 31.201-1's five part-time for allowability defines reasonable costs. Reasonable costs are not uniformly applied as FAR 31.201-3(b) states "What is reasonable depends upon a variety of considerations and circumstances, including generally accepted sound business practices."

A reasonable cost for a fixed-price contract to paint a house differs from reasonable cost for a fixed-price contract with economic price adjustment because price of paint went up or other factors. Reasonable cost fails to address valuation of the unfinished portion of contracts terminated for convenience varies from contract to contract even if it performed with the same contractor. Inconsistent valuation of the unfinished portion of the contract could leave either contractor or government wondering if they were compensated fairly for their efforts. Reviewing DFARS (Defense Federal Acquisition Regulation Supplement, n.d.), PGI, and Uniform Commercial Code (UCC) fails to address the question of fairness of valuation of the unfinished portion of contracts. DFARS 212.102 (Defense Federal Acquisition Regulation Supplement, n.d.) applicability is limited to acquisitions over $1,000,000, and DFARS 249.5 (Defense Federal Acquisition Regulation Supplement, n.d.) applicability is limited to major acquisitions over $25,000,000 for RDT&E and more than $100,000,000 for production inventory. Since many commercial item contracts are below the DFARS threshold, the UCC is consulted.

UCC Section 1-204 defines "value for rights if a person acquires them in return for any consideration sufficient to support a contract" (Cornell Law School, n.d.). A contractor could give a dollar in exchange for a ballpoint pen. It may not be fair to both parties; however, it creates a legally sufficient contract or that it adequately compensates the contractor for their effort they put in making the ballpoint pen.

How does the lack of a uniform definition of fair and reasonable compensation impact acquisitions practice?

Perhaps the answer is in FAR 12.403(d)(i)(B)(ii) since fair compensation includes "any charges the contractor can demonstrate directly resulted from the termination."

Contractors may demonstrate such charges using its standard record keeping system (including Generally Accepted Accounting Principles or GAAP). While the FAR does not preclude the usage of analytical tools or methods to determine the amount of settlement of commercial item contracts terminated for convivence, the word *may* implies that the contractor has the discretion of using GAAP to prove that its settlement costs represent fair compensation (see Kingdomware Technologies, Inc. v. United States) which makes FAR 12.403(d)(i)(B)(ii) a discretionary rule which all contractors must follow. Contractors not using GAAP to demonstrate termination claims could use an alternative method to meet the requirement to prove fair and reasonable compensation for cost recovery in commercial item contracts. FAR 49.201(a) mandates through the usage of the word *should* that the contractor needs to be fairly compensated for work and preparations associated with terminating contracts for convenience.

Recouping cost for a computer valued using estimated costs to be $100 by the government and valued using actual costs by the contractor as being $150, the contractor could use GAAP to value the computer at $150. It may seem to be fair since the contractor used GAAP; however the government can argue that the estimated costs of $100 is fair and reasonable valuation given that the $100 is "consideration sufficient to support a simple contract" under section 1-204 of the Uniform Commercial Code and is consistent with the government's estimating methodologies.

The difference on what is fair valuation for a commercial item, such as a computer, makes it difficult to determine if the contractor should be compensated $70 (70% of $100) using estimated costs or if the contractor should be compensated $105 (70% of $150) using actual costs. Negotiations of termination settlements may not reflect what each party perceives as the effort that they put into the contract since FAR 12.403(d)(i)(B)(ii) does not specifically identify a standard recordkeeping system. Record keeping can be non-GAAP or GAAP. Current practice in commercial environments for contractors is to choose valuation methodologies depending on their industry norms, which results in varying valuations of commercial items (e.g., commodities) due to market conditions thus leading to the perception that termination settlements are not being valued fairly.

It is proposed that net present value be used as a standard by which to value commercial item contracts terminated for convenience to allow both the government and contractors to be fairly compensated for the effort, they put into contracts terminated for convenience.

Terminating for Convenience on Commercial Contracts vs. Non-Commercial Contract Terminations

Termination for Cause termination may be used for cost recovery and negotiation. FAR 12.403(c)(2) states "the government's rights after a termination for cause shall include all the remedies available to any buyer in the marketplace." Termination for Cause centers on acquiring similar items, such as commercial items, for instance, exchanging a lawnmower with the make and model because it contained a defective blade. The lawnmower would still cost $100.

It is not addressed how a partially completed item is fairly valued by the government when a contract is terminated for convenience is not addressed.

For instance, a $100,000 widget is only 30% completed. While contractor may use GAAP to value the 70% of the widget contract that is incomplete, there is not a guarantee that the contractor will do so since FAR does not make the usage of GAAP mandatory. Since GAAP is not applied uniformly to value terminations, widgets purchased under the same conditions by the same contractor may be valued using both GAAP and non-GAAP measures which leads contractors to question if they are getting a fair valuation for their efforts.

So, attention must be turned to alternative uniform ways to calculate cost recovery.

Introduction to Cost Recovery in Commercial Item Contracts

To provide context for a discussion of a potential uniform way to calculate cost recovery in commercial item contracts, GAAP, Generally Accepted Accounting Principles, are discussed. GAAP principles include:

- ***Recognition***: What items should be recognized in the financial statements (for example as assets, liabilities, revenues, and expenses).
- ***Measurement***: What amounts should be reported for each of the elements included in the financial statements.
- ***Presentation***: What line items, subtotals, and totals should be displayed in the financial statements and how line items might be aggregated within the financial statements.
- ***Disclosure***: What specific information is most important to the users of the financial statements. Disclosures both supplement and explain amounts in the statements.

GAAP is followed by most organizations and was developed and established by FASB (Financial Accounting Standards Board).

Uniformity is an issue when calculating amount "contractors are entitled to recover the amount of cost of the contract work performed prior to termination" in contracts terminated for

convenience. To calculate cost recovery using the present value of actual costs completed with certainty as required by Lisbon Contractors, Inc. v. United States, 828 F. 2d 759, 765 (Fed. Cir. 1987), FASB Concepts Statement No. 7 (FASB, 2000) is used to calculate the present value of actual costs completed. To address the issue of uniformity as well as to ensure the cost recovery is calculated with certainty, this paper seeks to address the following research question: How should the present value of commercial item contracts should be calculated and what corresponding contract clause should be inserted into the contract? This research question is relevant because there is no empirical evidence or support or current literature which already answers this question.

Review of Existing Literature

A literature review was conducted to determine if present value is currently being used for commercial item contracts. This not the case, as present value is currently being used for other contracting functions. For instance, the General Services Administration uses a "Present Value Analysis Model" (General Services Administration, 2019) for lease proposals which does not pertain to commercial items or to termination of contracts. The General Services Administration's model only takes into account variables (e.g., utilities) which go into rental agreements. Chapter 9 of the Contract Pricing Guide discusses net present value in relation to cost price and analysis, which does not address net present value for commercial item contract cost recovery. Thus, there is no existing literature that addresses net present value usage in commercial item contract cost recovery.

What Are Commercial Items?

To provide context for potential commercial item termination reform, commercial items are defined. For non-government commercial acquisitions, the Federal Register identifies commercial items as including installation services, maintenance services, and other services procured to support a commercial item as well as products that were created by integrating commercial subsystems and components into a unique system (National Archives, n.d.).

The Federal Acquisition Reform Act (FARA) of 1996 (United States Department of Labor, 1995) and Federal Acquisition Streamlining Act (United States Congress, 1994) identifies that the government prefers to purchase of commercial items for a myriad of reasons including minimizing acquisition lead time. FAR Council implementation of FARA with FAR Part 12, Acquisition of Commercial Items, streamlined commercial acquisition procedures and made them contingent upon a commercial item determination.

However, commercial item reform has not established a uniform way to value the terminated portion of a commercial item contract in a manner that is perceived to be both fair and reasonable by the contractor and the government.

FASB: What is the FASB and Why Use Concept Statement No. 7

Discussion of what the FASB (Financial Accounting Standards Board) is and why Concept Statement No. 7 is used helps to give context to the calculation of present value and fuzzy present value. The FASB (Financial Accounting Standards Board) is an independent, non-for-profit organization that establishes financial accounting and reporting standards for public and private companies and non-profit organizations that follow GAAP. FASB is recognized as authoritative guidance by the Securities and Exchange Commission (SEC), state Boards of Accountancy, and the American Institute of Certified Public Accountants (AICPA) among other organizations.

Widespread acceptance of FASB pronouncements as being authoritative by the SEC, AICPA, and state boards of accountancy makes it makes likely that usage of a FASB Concept

Statement to calculate the present value of actual costs completed will be unchallenged by expert witness testimony before the GAO, Boards of Contracting Appeals, or United States Court of Federal Claims during the appeal of a contracting officer's decision. Recent decisions by the GAO, Armed Services Board of Contracting Appeals, Civilian Board of Contracting Appeals, and the Court of Federal Claims do not identify any instances where the FASB Concept Statement was used by either the government or the contractor to calculate the present value of actual completed. While usage of the FASB Concept Statement goes into uncharted territory in terms of whether it will be blessed by the judiciary, the authoritative nature of FASB and the acceptance of FASB pronouncements by the SEC, AICPA, and state boards of accountancy makes it prudent for the present value of actual costs completed to be calculated using a FASB Concept Statement. Since usage of GAAP is a widely accepted accounting practice recognized by the SEC, AICPA, and state board of accountancy, it is sound business judgment to award a contract using GAAP using FASB Concepts Statement No. 7.

Why Use FASB Concept Statement No. 7

FASB Concepts Statement No. 7 (FASB, 2000) is used to calculate present value of actual costs completed to determine amount of cost to be recovered due to the lack of a mechanism in the marketplace to readily observe the present value of actual costs completed to be recovered. While commercial item contracts may be "distinguished from one another in timing and uncertainty (FASB, 2000, p. 7), present value measurement helps to establish an economic difference between the commercial item contracts. Noted in FASB Concepts Statement No. 7 (FASB, 2000, p. 7–9), elements of present value include: (a) estimate of future cash flow, or in more complex cases, series of future cash flows at different times; (b) expectations about possible variations in the amount or timing of these cash flows, (c) time value of money, represented by risk-free rate of interest; (d) price for bearing the uncertainty inherent in the asset; (e) other, sometimes unidentifiable, factors including illiquidity and market imperfections. The contracting officer shall consider these elements of present value in determining amount of cost to be recovered because some commercial items as identified in the Commercial Item Handbook may be: (a) "noncommercial modification" (Commercial Item Handbook, n.d.), (b) minor modifications of a type not customarily available in the commercial marketplace made to meet the government's requirement, (c) evolved items, or (d) a type not identical to those in the commercial marketplace. Except modifications of commercial items available in the marketplace and the usage of a commercial item already on the marketplace meeting the government's requirement, commercial items identified in the Commercial Item Handbook do meet the elements of present value set forth in FASB Concept Statement No. 7 since they are illiquid in that they do not have a marketplace outside of the government. Illiquid commercial items may be commodities, such as gold, being purchased specifically for use by the government. These illiquid items would most likely be valued by consulting with experts on the particular item or by other estimating techniques permissible in the FAR and other procurement regulations.

Calculation of the value of cash flow of cost to be recovered, either using best estimate or expected present value, applies to commercial items because they meet the elements of present value. Best estimate is used to determine amount of cost to be recovered for commercial items available in the marketplace and modifications of commercial items in the marketplace since there is a commercial item already in the marketplace to compare it to.

How to Identify Cash Flow for Present Value

The following steps, based on FASB Concept Statement No.7, are recommended to identify cash flow for commercial items using the best estimate method:

1. Comparison of commercial item in the contract to another commercial item existing in the marketplace that has an observed interest rate (this is commonly referred to as “the rate commensurate with the risk” [FASB, 2000]).
2. Identification of set of discounted cash flows and comparison of cash flow sets between two commercial items.
3. Evaluation of characteristics or elements in commercial items which are different from each other.
4. Evaluate if changing economic conditions will cause the two commercial item cash flows to behave differently.

Changing economic conditions may include labor strike increasing or decreasing the price of one commercial item. Different characteristics or elements of commercial items may have different capabilities (such as the speed of a machine lathe). Economic conditions may be outside of government or contractor control; however, it is considered when calculating present value.

Best estimate method cannot be used for commercial items for which no market for the item or comparable item exists. For instance, actual cost to complete a supercomputer may be $100 million, comparable supercomputers on the market are valued at $200 million and $300 million based on market research. Best estimate or most likely cash flow necessary to complete the supercomputer is $200 million. Therefore, contractor can expect to recover $200 million on the contract to build a supercomputer.

Estimated Cash Flow Example

An expected cash flow estimate method example is when actual cost to complete building a commercial (e.g., supercomputer computer) item may be $100 million, comparable supercomputers on the market are valued at $200 million and $300 million with probabilities of completion of actually completing the supercomputer at 10%, 60%, and 30%, respectively. The expected cash flow is $220 million using the following formula: ($100 million x .1) + ($200 million x .6) + ($300 million x .30) =$220 million. Therefore, contractor can expect to recover $220 million on the contract to build a supercomputer.

Although the estimated cash flow estimate method results in a higher cost of recovery for the contractor ($220 million versus $200 million using the best estimate method), the estimated cash flow method is preferred because it accounts for the uncertainty in the timing of the cash flow. Assigning risk in commercial item contracts to calculate present value of cost recovery is not an exact science. Economic or other conditions may contribute to the uncertainty of the contractor recovering these actual costs. Also, risk needs to be assessed on the commercial items under contract in relationship to the extent the commercial item adds to or diminishes total risk in the total commercial items under contract. Returns on one commercial item vary with the market for all commercial items or recent experience and framing of decisions by contracting officers influence the price of commercial items in the market. Alternatively, behavioral economics might also influence price of commercial items in the marketplace. Economic factors and different contracting officers may assign different degrees of risk to a commercial item necessitate market research to be conducted to justify calculations of actual costs to be recovered on a commercial item contract.

Examples of economic factors impacting price of commercial items would be inflation or deflation.

Why Use Estimated Cash Flow Method?

One of the objectives of the FAR is to “minimize administrative costs” per FAR 1.102. Usage of estimated cash flow method to calculate estimated cost to complete a contract is a consist method to determine how best to calculate the percentage of contract to be completed.

The cash flow estimate method results in a higher cost of recovery for the contractor ($220 million versus $200 million using the best estimate method), which results in cost recovery being calculated using a generally accepted method. Thus, contracting officer oversight and legal scrutiny of contracts for commercial items using estimated cash flow method is reduced.

Different interpretations trigger contradictory results since some contractors elect to use different net present value analysis techniques and some not electing to use any techniques at all. Inevitably, court decisions will differ on the same sets of facts if contractors use different present value analysis techniques or no present value techniques, promoting doubt as to amount of cost to be recovered. A contractor using estimated cash flow method does not risk a court not finding fair compensation in terminations for convenience because of usage of generally accepted method to calculate net present value.

Valuation Based on Past Performance

Actual cost to complete may be valued solely using value of the commercial item multiplied by probability of completion based on past performance in instances when prices of comparable commercial items cannot be obtained. For example, a supercomputer contract costing $100 million and a probability of completion of 10% would result in actual cost recovery to complete of $10 million.

This approach is used in contingency operations; defense or recovery from cyber, nuclear, biological, chemical, or radiological attack; major disasters or emergency assistance required under the Stafford Act as declared by the president; and Humanitarian or Peacekeeping Operations. A contingency operation might be a hurricane because the president issues emergency assistance declarations for those natural disasters. During contingencies, it may be impractical to gather other commercial sources for the purposes of valuing the commercial item or it must be so urgent that the contract be terminated, and another contractor selected that it would be impractical to gather other commercial sources for comparison. Other sole source acquisitions scenarios may also apply other than contingency operations and the same valuation procedure would apply.

Unique Systems: Present Value

A unique system could range from a weapons system to a supercomputer. Thus, “fuzzy net cash flow” (Maravas & Pantouvakis, 2012) is useful in determining present value of the commercial item. The following formula based on Maravas and Pantouvakis (2012) is proposed in order to calculate cash flow: Cash Flow = Time Savings + Operating Cost Savings + Accident Savings + Environmental Savings – Investment Cost – Operation and Maintenance Cost. Accident Savings includes manpower and facilities damage and is determined by the contractor subject to verification by government auditors.

Investment cost is the cost of acquiring the commercial item, including research and development expenses. Time savings include manpower as well as facilities overhead and other incurred direct and indirect costs.

Due to lack of empirical data and usage of fuzzy cash flow, administrative burden to government and industry may or may not be increased or decreased. Data is collected for each of the year(s) of operation and may be reduced or increased by a certain percentage and variables of time savings may be reduced or increased by a certain percentage in order to determine the valuation of cash flow. This quantifies risk inherent in the commercial item system. In the initial years of a system, the investment costs of the project, such the cost of component commercial items, may be present while there are no benefits or maintenance costs

present. Time savings, operational cost savings, environmental savings, and operation and maintenance costs are realized in later years of the project based on contractor provided data. The system becomes unsustainable when investment cost (e.g., cost of replacement parts) outweighs the benefits and savings of the project. Since it is unknown how risky a project will be, cash flow calculated is from the previous formula will be multiplied by the probability of the unique system being successful in order to derive the present value of a system over time. In FASB Concept Statement No. 7 page 21, the expected present value of a system is the sum of the present value of the present values.

For example, present value of a system being 10% successful is 95.24 in year 1, 541.64 as the probability increases to 60% in year 2, and 255.48 as the probability decreases to 30% in year 3, the total expected value is 892.36. Contract was 30% complete at time of termination; therefore contractor is entitled to recover 30% of 892.36 as the amount of contract work performed prior to termination.

Watson as an Example of a Unique System and Present Value

Watson, the IBM supercomputer used in the popular television series Jeopardy, is a unique system. In year 1, Watson would be unsustainable because of tweaks needed for its algorithm, thus a 10% success rate is assigned to Watson and for the purposes of this example it is valued at $95.24 million in year 1, and the next year the probability increases to 60% because the kinks in algorithm were worked out thus probability increases to 60%, which results in a value of $541.64 million. Valuation is increased to $892.36 million in year 3. If the contract to build Watson was terminated when it was 30% completed, the contractor is entitled to recover 30% of $892.36 million as the amount of contract work performed prior to termination.

Why Use Fuzzy Net Cash Flow?

An objective of the FAR is to "minimize administrative costs" as documented in FAR 1.102. The estimated cash flow method to calculate estimated cost to complete a contract is a consistent method. Thus, it reduces the need for contracting officer oversight and legal scrutiny of commercial item contracts using fuzzy net cash flow method. Currently, no contractors use fuzzy net cash flow since it is not mentioned in the FAR.

Inevitably, court decisions will differ on the same sets of facts if contractors use different present value analysis techniques or no present value techniques, promoting doubt as to amount of cost to be recovered. Contractors using the estimated cash flow method may have courts find fair compensation in terminations for convenience because of the usage of a generally accepted method to calculate net present value.

Are These Changes Permissible in the FAR?

FAR 12.403(d)(1)(i)(a) ("Welcome to FARSite", n.d.) states the percentage of the contract price reflecting percentage of work performed is the amount that the contractor should be paid when terminating a contract for convenience. FAR 12.403(d)(1)(i)(a) states in part: (d) *Termination for the Government's convenience.* (1) When contracting officer terminates a contract for commercial items for the Government's convenience, the contractor shall be paid --

(i) (A) The percentage of the contract price reflecting the percentage of the work performed prior to the notice of the termination for fixed-price or fixed price with economic price adjustment contracts.

Net Present Value Clause

Lack of existing literature on an NPV clause for commercial item contracts terminated for convenience warrants rationale for this clause based on policy goals of the FAR. A policy goal of the FAR is uniformity. Contractors can't elect not to use NPV, a type of analytical method, just because FAR 12.403(d)(i)(B)(ii) only includes the word *may*, rather than *shall*, which the Supreme Court has held to be discretionary.

The drafters of the FAR required "coordination, simplicity and uniformity in the Federal acquisition process" (Mason, 2000, p. 724). Requiring net present value in all cases of government contracting furthers this goal. Conversely, different interpretations would occur with some contractors electing to use present value analysis and some electing not to do so.

Inevitably, court decisions will differ on the same sets of facts if contractors used GAAP as a means of fair compensation merely because of the usage of the term *may*, promoting doubt as to if the contractor should use net present value analysis as promogulated by GAAP. A contractor using NPV clause is fair compensating in terminations for convenience because of the lack of the word *shall* in the clause.

Alternative 1: The term *net present value* (NPV) shall mean present value of cash payments generated by a commercial item(s), calculated using a discount rate determined by an actuary selected by the government and determined in accordance with GAAP. Probability shall be determined by conducting an analysis of alternatives analysis. Contractors shall calculate cost recovery or charges from commercial item terminations based on NPV or fuzzy net cash flow.

Alternative 2: The term *net present value* (NPV) shall mean present value of cash payments generated by a commercial item(s), due in the future reduced by a discount rate equal to 100% of the Applicable Federal Rate (as defined in Code Section 1274(d). Contractors shall calculate cost recovery or charges from commercial item terminations based on NPV. Probability shall be determined by conducting an analysis of alternatives analysis.

Internal Revenue Code Section (IRC) 1274(d) applies to debt instruments which are publicly traded or issued for publicly traded property, such as government property. As noted in IRC 1275(a)(1), a debt instrument includes:

> Daily portion of original issue discount for any day shall be determined under section 1272(a) (without regard to paragraph (7) thereof and without regard to section 1273(a)(3)). In the case of an obligor of a short-term obligation (as defined in section 1283(a)(1)(A)) who uses the cash receipts and disbursements method of accounting, the original issue discount (and any other interest payable) on such obligation shall be deductible only when paid.

An example of a debt instrument may be a loan from a bank to a contractor.

So, alternative 2 applies to commercial items purchased using debt financing. Conversely, a contractor who does not use net present value clause risks a court not finding fair compensation in terminations for convenience because of the usage of word *may* in FAR 12.403(d)(i)(B)(ii).

A final policy benefit is consistent enforcement of the usage of present value in termination of commercial item contracts. Definition of NPV, either in alternative 1 or alternative 2, and uniform application gives contractors a clear path to take prior to court intervention. This "minimizes administrative operating costs" as required in FAR 1.102, by having government

spend less time and money in oversight functions (such as audit) ensuring that contracting officers fairly compensate contractors in terminations since it is mandatory not optional to do so.

Example of Net Present Value Clause

Using Alternative 1, an acquisition would be valued at $61,446 today assuming a return of $10,000 per year over 10 years having a discount rate of 10%. Without using net present value, the present value of the acquisition at year 10 would be $3,855. If the contract is terminated prior to completion without using net present when it is 70% completed, the contractor would be entitled to recovery $2698.50 compared with $43012.20 using net present value due to the time value of money. It is not practical to provide an example of Alternative 2 because the AFR changes from month to month within a given year.

Conclusion

Calculation of cost recovery in commercial item contracts terminated for convenience is a challenge due to a lack of current literature and a lack of mandatory techniques to be used.

Usage of FASB Concepts Statement No. 7 after calculating a fuzzy net cash flow, present value of commercial item contracts is determined for complex commercial acquisitions. Usage of fuzzy net cash flow reduces the overall administrative burden for contract administration since it is a consistent technique being used. Present value is calculated using FASB Concepts Statement No. 7 for other commercial items.

Usage of present value reduces the overall administrative burden for contract administration since it is a consistent technique being used. The difference between present value and fuzzy net cash flow is that fuzzy net cash takes into account other variables impacting valuation, such as operating time, which may provide a more accurate projection of present value for complex commercial items. Two present value clauses are proposed in order to assist contracting officers in determining the present value of commercial item contracts and to serve a variety of policy benefits as to the construction of the FAR. Mandatory usage of NPV clauses provides for uniformity while providing a framework to base negotiations upon.

It is unknown if the present value, fuzzy value, and present value clauses will hold up to scrutiny by the Armed Services Board of Contracting Appeals and other courts due to the lack of cases which address these issues. There is a lack of empirical evidence or existing literature regarding the usage of present value and fuzzy value in commercial item contracts since these methods have not been tried in the field yet.

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